



Legislative Department
Seattle City Council
Memorandum

Date: March 25, 2010

To: Councilmember Sally J. Clark, Chair
Councilmember Tim Burgess, Vice Chair
Councilmember Sally Bagshaw, Member
Committee on the Built Environment (COBE)

From: Rebecca Herzfeld and Michael Jenkins, Council Central Staff

Subject: March 25, 2010 Special COBE Meeting: Updates to Multifamily Zones

To continue the review of regulations for Lowrise (LR) multifamily zones, we are requesting direction from the Committee on two topics that were first discussed at your meeting on March 20, and two additional topics:

1. Parking requirements for multifamily housing in urban villages
2. Height limits for Lowrise 3 and Lowrise 4 zones
3. Height exceptions in LR zones
4. Floor Area Ratio (FAR) and density limits in LR zones

For the first two topics, we have included the March 20th staff memo in your Committee notebooks. The second two items are addressed below.

3. Height exceptions in Lowrise zones

As part of your discussion of height limits in LR3 zones, you began to address what height exceptions should be permitted in Lowrise zones, including allowances for pitched roofs and for partially buried first floors. Today we are presenting our recommendations for height exceptions for all LR multifamily zones.

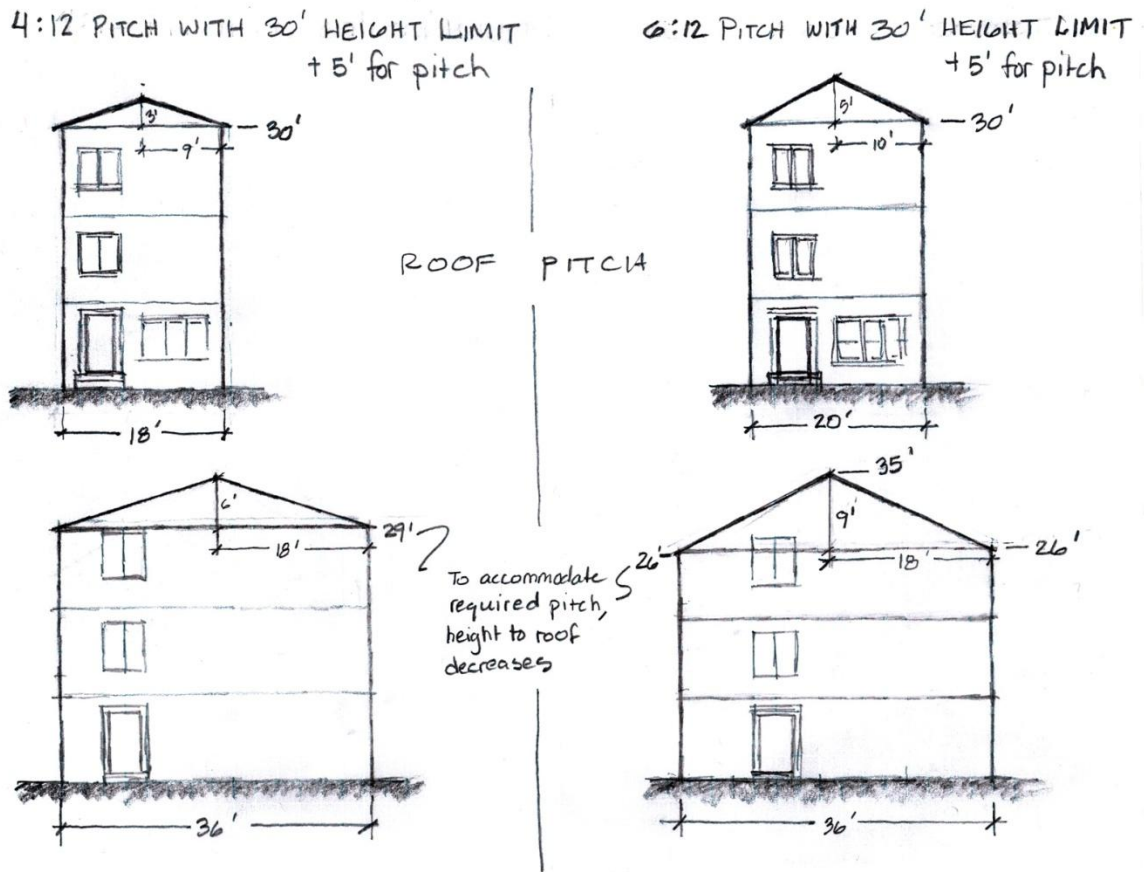
3A. Pitched roof height exceptions

The current code provides a height exception for pitched roofs in LR zones, to encourage a variety of roof forms and help match the character of existing neighborhoods. For zones with 25 foot height limits, and for cottage housing, which has an 18 foot height limit, the exception allows either an additional 10 feet for pitched roofs with a minimum slope of 6:12, or an additional 5 feet for roofs with a shallower pitch of 4:12. In LR zones with height limits of 30' or 37', the current exception allows 5 more feet for a roof with a 4:12 pitch.

Minimum roof slope

At community meetings about the proposed changes to the multifamily regulations, Department of Planning and Development (DPD) staff heard that people did not like the appearance of structures with the shallow pitched roofs that are encouraged by current code. It was widely held

that the 4:12 roof pitch results in structures that do not fit in and can even detract from the neighborhood. In response, DPD staff recommended that *all* pitched roof exceptions require a minimum roof slope of 6:12, and we support their recommendation. The diagram below highlights the difference between a 4:12 and a 6:12 roofline on a 30 foot tall structure. The drawings show buildings with simple roofs, but compound roofs with multiple peaks and valleys are also possible design solutions.



Amount of pitched roof height exception

In early March, COBE directed that the height limit in the current Lowrise Duplex Triplex (LDT), Lowrise 1 (L1), and L2 zones be raised from 25 feet to 30 feet. Because of this increase, we believe that the option of going up ten feet with a pitched roof is no longer needed to help provide a workable third floor. We recommend that the pitched roof exception in these areas allow an additional 5 feet, at a pitch of 6:12.

We also recommend that cottage housing have a 7 foot exception for a pitched roof, rather than the current 10 feet. The ten foot exception was provided as a trade-off for limiting the upper floor of a cottage unit to 350 square feet. We are proposing to lift this limit to provide design flexibility (cottages are already limited to a maximum footprint of 650 square feet). Carriage housing units located on top of garages at the back of a lot would be allowed a similar 7 foot exception for a pitched roof. Table 1 below summarizes the staff recommendation for pitched roofs for all housing types in LR zones.

Table 1: Proposed Height Limits and Pitched Roof Exceptions⁽¹⁾

Zone	Cottage Housing & Carriage Housing		Rowhouses		Townhouses		Apartments	
	Base Height	Height for Pitched roof	Base Height	Height for Pitched roof	Base Height	Height for Pitched roof	Base Height	Height for Pitched roof ⁽⁴⁾
LR1	18'	7'	30'	5'	30'	5'	30'	5'
LR2	18'	7'	30'	5'	30'	5'	30'	5'
LR3	18'	7'	30'	5'	30'	5' or 10' ⁽²⁾	37' or 40' ⁽³⁾	5'

⁽¹⁾ To qualify for the pitched roof exception, the pitch must be a minimum of 6:12

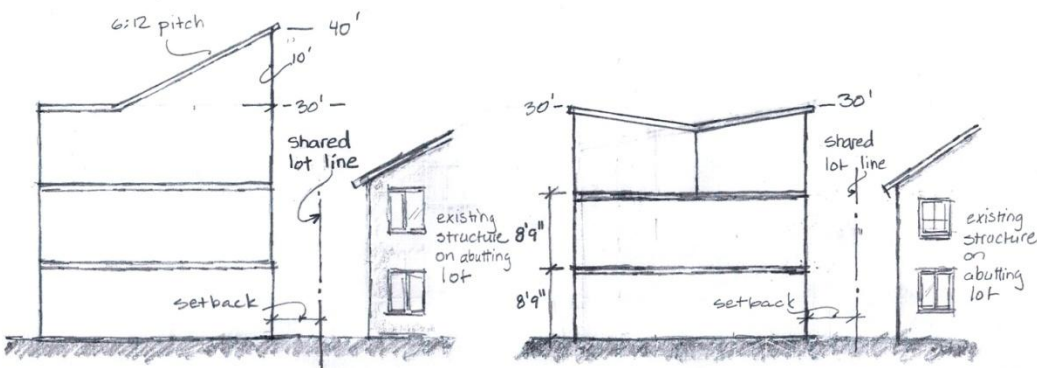
⁽²⁾ The 10 foot exception applies when the project does not use the exception allowing up to 4 feet for a partially below-grade first floor; otherwise, the 5 foot exception applies.

⁽³⁾ Outside of urban centers, urban villages and station areas, the height limit is 37 feet; inside those areas, it is 40 feet. Additional height up to 4 feet is permitted for partially below-grade floor.

⁽⁴⁾ The 5 foot pitched roof exception only applies when the project does not use the exception allowing up to 4 feet for a partially below-grade first floor.

Shed and butterfly roofs

A question was raised during the public comment period at the COBE meeting on March 20th about whether shed and butterfly roofs should qualify for the pitched roof exception. Currently, they do not currently qualify. We recommend against adding an outright exception for them, because such rooflines can result in the location of walls near the property line that are much higher than the regular height limit, as illustrated in the diagram below. The direction given by the Committee to raise the general height limits in LR zones would make it easier to build shed and butterfly roofs without the need for a special exception. If the Committee would like us to further analyze this issue, we recommend that you consider allowing a height exception for these roof forms through the design review process, rather than an exception that is permitted outright.



Undesirable condition of high-side of butterfly or shed roof facing neighboring lot

Butterfly roof within 30' height limit

The proposed amendments to the Land Use Code for pitched roof exceptions would read as follows, with new wording shown underlined and deleted text ~~crossed out~~. To make it easier to see what would be changed, the amendments are shown to the Code section that now applies only to LR zones. In the final legislation, the height regulations for all multifamily zones would be combined in Section 23.45.514.

23.45.009 - Structure height —Lowrise zones

* * *

CD. Pitched Roofs.

~~1. Except for cottage housing developments, in Lowrise Duplex/Triplex, Lowrise 1 and Lowrise 2 zones the ridge of pitched roofs on principal structures with a minimum slope of six to twelve (6:12) may extend up to thirty five (35) feet. The ridge of pitched roofs on principal structures with a minimum slope of four to twelve (4:12) may extend up to thirty (30) feet. All parts of the roof above twenty five (25) feet shall be pitched. (See Exhibit 23.45.009 A.)~~

~~2. In cottage housing developments, the ridge of pitched roofs with a minimum slope of six to twelve (6:12) may extend up to twenty eight (28) feet. The ridge of pitched roofs with a minimum slope of four to twelve (4:12) may extend up to twenty three (23) feet. All parts of the roof above eighteen (18) feet shall be pitched.~~

~~3. In Lowrise 3 and Lowrise 4 zones the ridge of pitched roofs on principal structures may extend up to five (5) feet above the maximum height limit. All parts of the roof above thirty (30) feet in Lowrise 3 zones and thirty seven (37) feet in Lowrise 4 zones shall be pitched at a rate of not less than four to twelve (4:12). (See Exhibit 23.45.009 B.)~~

~~4. No portion of a shed roof shall be permitted to extend beyond the maximum height limit under this provision.~~

1. Additional height is permitted for a pitched roof above the height limit when all parts of the roof above the applicable height limit have a minimum slope of 6:12 and:

a. No portion of a shed or butterfly roof extends beyond the height limit under this provision;

b. Roof forms including but not limited to barreled and domed roofs may be allowed under this subsection 23.45.514.D if the Director determines that the roof form is in keeping with the massing of a pitched roof form such as a gable or gambrel roof that would otherwise be allowed by this subsection 23.45.415.D; and

c. Rooftop features are permitted pursuant to subsection 23.45.514.E (*this subsection lists exceptions for features such as chimneys and elevators*) in addition to the height allowance of subsection 23.45.514.D.

2. In LR1 and LR2 zones, the ridge of pitched roofs on principal structures may extend up to 5 feet above the height limit when the requirements of subsection 23.45.514.D.1 are met.

3. In LR3 zones, when the requirements of this subsection 23.45.514.D.1 are met, the ridge of pitched roofs on principal structures may either:

a. extend up to ten feet above the height limit for rowhouses and townhouses that do not use the height exception provided in 23.45.514.B (*this is the exception for a partially buried first floor*); or

b. extend up to five feet above the height limit for rowhouses and townhouses that use the height exception provided in 23.45.514.B; or

c. Extend up to five feet above the height limit for apartments.

4. In LR zones, for structures that include accessory units above enclosed parking in a rowhouse development according to the provisions of subsection 23.45.5XX.B, and for carriage units in a cottage housing development, the ridge of pitched roofs may extend up to 7 feet above the height limit when the requirements of subsection 23.45.514.D.1 are met.

* * *

Committee direction on pitched roof height exceptions:

1B. Height Exceptions for Rooftop Features

The Code currently provides height exceptions in LR zones for a variety of features, including solar collectors and elevator penthouses. We recommend that the allowances for these feature be continued. In addition, we recommend adding the same exceptions that were approved by the Council last year for Midrise and Highrise zones. These include exceptions for green building features, such as a two foot exception for green roofs, a ten foot exception for wind-driven power generators, and permission for solar collectors not taller than four feet to be located on top of penthouse structures; and an exception for sloped roofs hidden by a parapet.

We are also recommending that dormers and clerestories be permitted as rooftop features, within the height limit allowed for pitched roofs. They are traditional architectural features located on roofs that can allow more usable floor space inside a structure, without visually increasing the appearance of building bulk, as would occur if an additional floor with vertical walls were

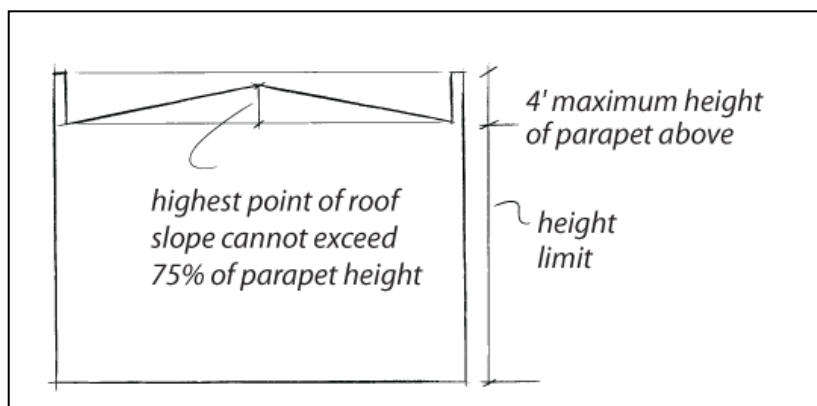
allowed. Dormers and clerestories have also been used to add visual interest to a roof. These same provisions were adopted in October 2008 for residential structures in single family zones.

The proposed amendments to the Land Use Code for exceptions for rooftop features in LR zones would read as follows, with new wording shown underlined and deleted text ~~crossed out~~:

23.45.009 - Structure height —Lowrise zones

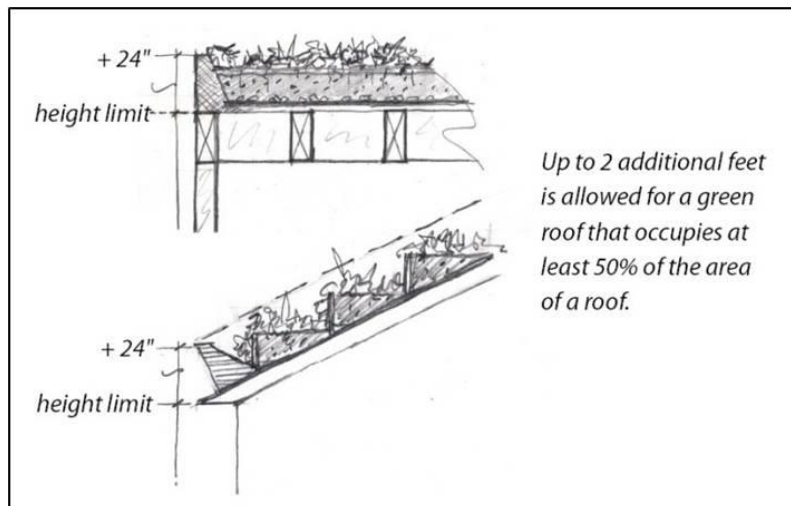
E. Roofs enclosed by a parapet. To promote adequate drainage, portions of a roof that are completely surrounded by a parapet may exceed the height limit to allow for a slope, provided that the highest point of the slope does not exceed the height limit by more than 75 percent of the height of the parapet. See Exhibit B for 23.45.514.

Exhibit B for 23.45.514: Height Allowance for Sloped Roofs Concealed by a Parapet



F. Green roofs. For any structure with a green roof meeting the provisions of Section 23.45.524 and having a minimum rooftop coverage of 50 percent, up to 24 inches of additional height above the height limit is allowed to accommodate structural requirements, roofing membranes, and soil. See Exhibit C for 23.45.514.

Exhibit C for 23.45.514: Green Roof Height Allowance



G. Rooftop Features.

1. Flagpoles and religious symbols for religious institutions are exempt from height controls, except as regulated in Chapter 23.64, Airport Height Overlay District, provided they are no closer than 50 percent of their height above existing grade or, if attached only to the roof, no closer than 50 percent of their height above the roof portion where attached, to any adjoining lot line.

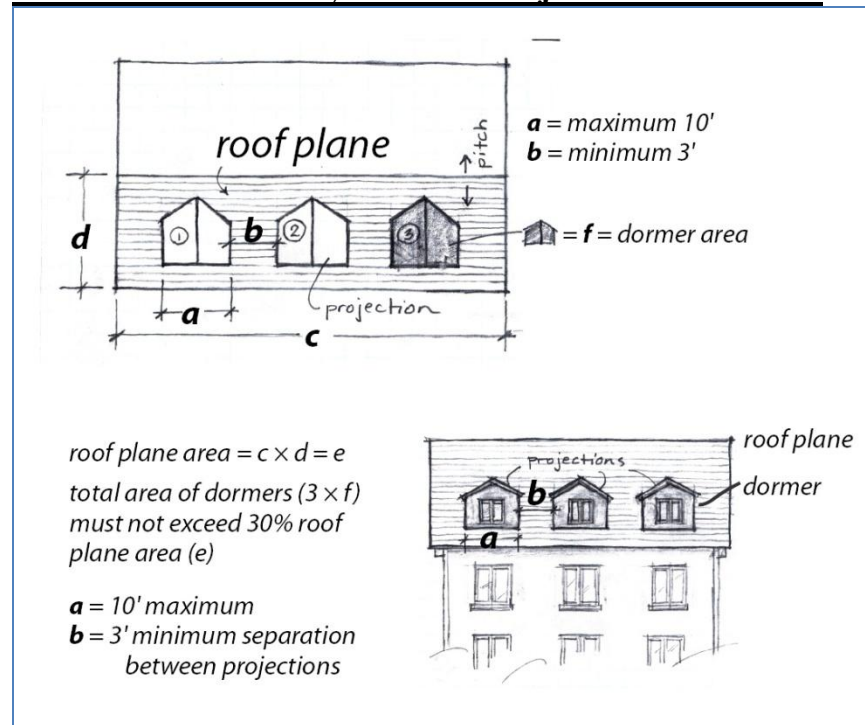
2. Projections that accommodate windows and result in additional interior space, including dormers (see Exhibit D for 23.45.514), clerestories, skylights, and greenhouses, may extend to the ridge of a pitched roof permitted pursuant to subsection 23.45.514.D, or 4 feet above the applicable height limit pursuant to subsection 23.45.514.A, whichever is higher, if all of the following conditions are satisfied:

a. the total area of these projections is limited to 30 percent of the area of each roof plane measured from the plan view perspective;

b. On pitched roofs, projections are limited to 10 feet in width with a minimum separation of 3 feet from other projections; and

c. On flat roofs, projections are set back at least 4 feet from exterior walls.

Exhibit D for 23.45.514, Permitted Projections for Dormers



~~23. Open railings, planters, skylights, clerestories, greenhouses, parapets and firewalls may extend no higher than the ridge of a pitched roof permitted under subsection C above or 4 feet above the maximum height limit set in subsection 23.45.009.A. For cottage housing development, these rooftop features may extend 4 feet above the 18 foot height limit.~~
Except in cottage housing developments, open railings, planters, parapets and firewalls may extend to the height of the ridge of a pitched roof permitted pursuant to subsection 23.45.514.B, or 4 feet above the applicable height limit set in subsections 23.45.514.A, B, or C, whichever is higher.

~~34. For cottage housing developments, open railings, planters, skylights, clerestories, greenhouses, parapets, firewalls, and chimneys may exceed the 18 foot height limit by 4 feet or may extend 4 feet above the ridge of a pitched roof, whichever is higher. The exceptions in subsection 23.45.514.G.5 do not apply to cottage housing.~~

~~45. Except in cottage housing developments, In LR zones, the following rooftop features may extend 10 feet above the height limit set in subsection 23.45.009.A subsections 23.45.514.A and B, so long as the combined total coverage of all features does not exceed 15 percent of the roof area or 20 percent of the roof area if the total includes screened mechanical equipment. In MR and HR zones, the following rooftop features may extend 15 feet above the applicable height limit set in subsection 23.45.514.A and C, so long as the combined total coverage of all features does not exceed 20 percent of the roof area or 25 percent of the roof area if the total includes screened mechanical equipment:~~

- ~~a. Stair and elevator penthouses;~~
- ~~b. Mechanical equipment~~
- ~~b. Play equipment and open-mesh fencing which encloses it, so long as the fencing is at least 5 feet from the roof edge;~~
- ~~c. Chimneys;~~
- ~~d. Sun and wind screens;~~
- ~~e. Penthouse pavilions for the common use of residents in MR and HR zones;~~
- ~~f. Greenhouses that meet minimum energy standards administered by the Director; and~~
- ~~g. Wind-driven power generators; and~~

h. Stair and elevator penthouses, except that when additional height is needed to accommodate energy-efficient elevators in LR and MR zones, elevator penthouses may extend the minimum amount necessary to accommodate energy-efficient elevators, up to 16 feet above the applicable height limit, subject to administrative design review approval pursuant to Section 23.41. When additional height is needed to accommodate energy-efficient elevators in HR zones, elevator penthouses may extend the minimum amount necessary to accommodate energy-efficient elevators, up to 25 feet above the applicable height limit. Energy-efficient elevators shall be defined by Director's Rule. When additional height is allowed for an energy-efficient elevator, stair penthouses may be granted the same additional height if they are co-located with the elevator penthouse.

~~e. Minor communication utilities and accessory communication devices, except that height is regulated according to the provisions of Section 23.57.011.~~

6. For height exceptions for solar collectors, see Section 23.45.545.D.

7. In order to protect solar access for property to the north, the applicant shall either locate the rooftop features listed in this subsection 23.45.514.F at least 10 feet from the north edge of the roof, or provide shadow diagrams to demonstrate that the proposed location of such rooftop features would shade property to the north on January 21st at noon no more than would a structure built to maximum permitted bulk:

- a. Solar collectors;
- b. Planters;
- c. Clerestories;
- d. Greenhouses;
- e. Minor communication utilities and accessory communication devices, permitted according to the provisions of Section 23.57.011;
- f. Nonfirewall parapets;
- g. Play equipment;
- h. Sun and wind screens;
- i. Penthouse pavilions for the common use of residents.

8. For height limits and exceptions for communication utilities and devices, see Section 23.57.011.

Committee direction on height exceptions for rooftop features:

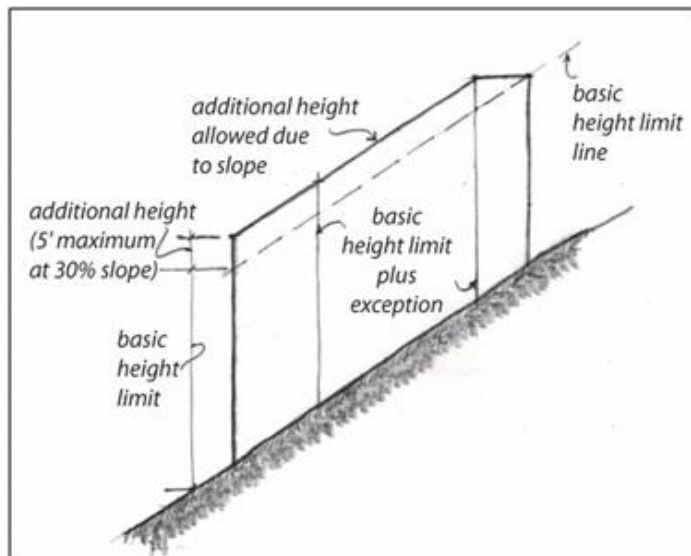
1C. Eliminate the sloping lot height exception in all zones

The current code provides an exception that allows structures on sloping lots to regain a maximum of five feet of height would be lost because of the current method of measuring height. Due to the direction given earlier by the COBE to switch to the shoreline height measurement technique, this exception is no longer needed. We are proposing that it be eliminated in all the zones where it currently applies. In multifamily zones, the following language and exhibit would be deleted:

23.45.009 - Structure height —Lowrise zones

* * *

~~E. Sloped Lots. Additional height shall be permitted for sloped lots, at the rate of one (1) foot for each six (6) percent of slope, to a maximum of five (5) feet. The additional height shall be permitted on the downhill side of the structure only, as described in Section 23.86.006 C.~~

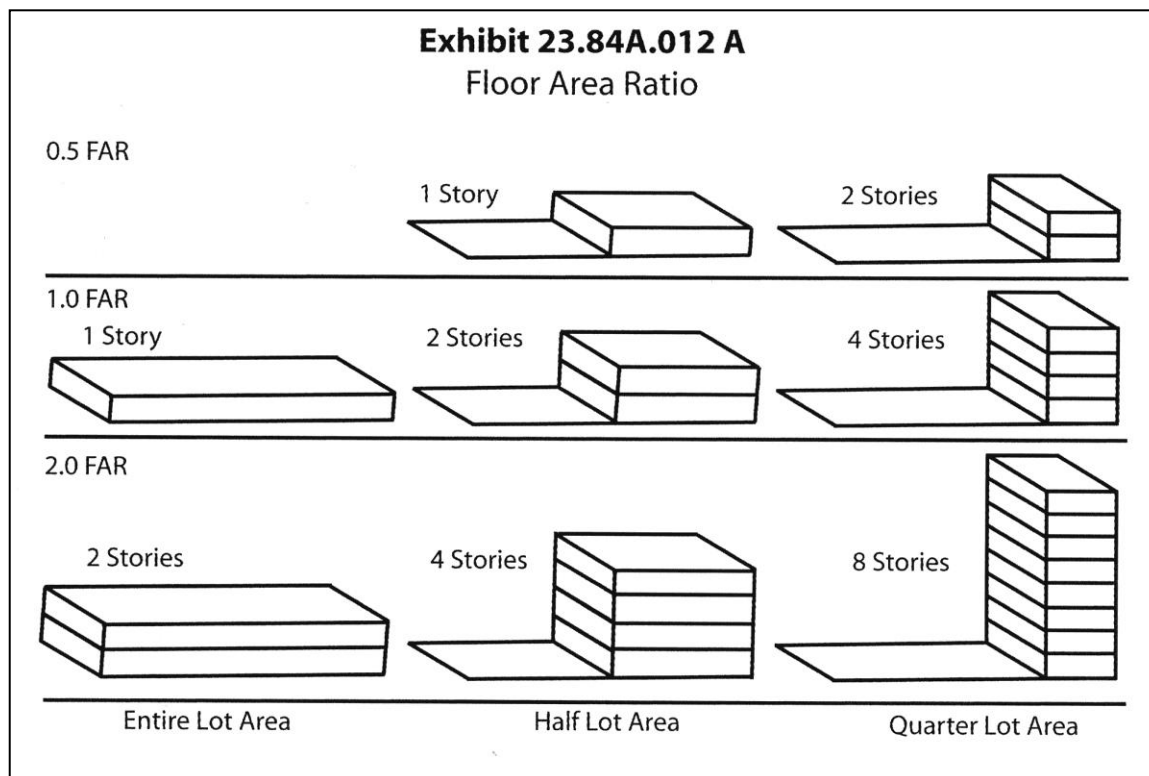


Committee direction on deleting the sloped lot height exception:

2. Discussion of Floor area ratio (FAR) and density limits

2A. FAR Limits

DPD's 2009 proposal recommended that buildings in LR zones be regulated by an FAR limit. FAR is the ratio of the gross floor area in a building to the total land area of the lot on which it is built. For example, a building with 20,000 square feet on a 10,000 square foot site would have an FAR of 2 (20,000 divided by 10,000). FAR has been used in downtown and industrial zones for over 30 years. FAR was added to commercial zones in 2006 and to MR and HR zones in 2009. FAR limits do not determine the shape of a structure, only how many square feet it contains. The diagram below from the Land Use Code illustrates how structures with the same FAR can look very different.



FAR limits provide more design flexibility than other types of development regulations. For example, if the massing of a project results in greater floor area at the lower levels of a building and less at higher levels, the result may be reduced shadows and more sunlight on surrounding properties, and less view blockage. As suggested by the drawing, reducing the footprint of the structure in exchange for a taller building can provide ground floor open space. The use of FAR to control bulk would allow more flexibility for how units are arranged on a site.

Table 2 summarizes the FAR limits proposed by DPD last year for LR zones. The proposal was based on comparing the FARs of development prototypes using the current and proposed regulations to the FARs of actual multifamily projects built between 1996 and 2006. The DPD recommendations were not intended to increase development potential.

Table 2: FAR Limits Proposed by DPD in 2009 for Lowrise Zones

	LDT	L1	L2	L3	L4
Permitted FAR	1.0	1.1	1.2	1.4	2.0
Maximum FAR when affordable housing is provided	N.A.	N.A.	N.A.	2.0	N.A.

Since DPD made its proposal, the Committee has directed staff to use housing types as the basis for the LR zone regulations. We are now proposing to set FAR limits by housing type, and to increase the FAR limits for projects that provide desirable design features. For example, projects that provide a significant amount of ground level open space, common enclosed parking, and orientation of front entrances to the street could gain a higher FAR limit, in part because some of these features can be expensive or difficult to provide. Setting the FAR limit higher for more desirable structures also signals the Council's support for these types of developments.

The other change in the original DPD recommendation is that an affordable housing incentive would not apply in LR zones. This change is based on direction given by the Committee in February. Instead, higher FAR would be allowed within growth areas (Urban Villages, Urban Centers, and Station Area Overlay Districts). The FAR limits in the new staff proposal, shown in Table 3, are either the same as the limits in the DPD 2009 proposal or, for some housing types, slightly higher (by 0.1 FAR).

Table 3: New staff proposal for Floor Area Ratios in Lowrise Zones

Zone		Housing Type			
	Growth Areas	Cottage Housing	Rowhouse	Townhouse	Apartment
LR1	Not Applicable	1.1	1.1 or 1.2 ⁽¹⁾	1.0 or 1.1 ⁽²⁾	1.0 (duplex or triplex only)
LR2	Outside	1.1	1.1 or 1.2 ⁽¹⁾	1.1 or 1.2 ⁽²⁾	1.2
	Inside	1.1	1.2 or 1.2 ⁽¹⁾	1.1 or 1.2 ⁽²⁾	1.2 or 1.3 ⁽³⁾
LR3	Outside	1.1	1.3 or 1.4 ⁽¹⁾	1.2 or 1.3 ⁽²⁾	1.4 or 1.5 ⁽³⁾
	Inside	1.1	1.3 or 1.4 ⁽¹⁾	1.2 or 1.3 ⁽²⁾	1.5 or 2.0 ⁽⁴⁾

⁽¹⁾FAR may be increased by .1 for a rowhouse development that includes one or more accessory units.
⁽²⁾FAR may be increased by .1 for a townhouse development that provides design features specified in the Code, including common enclosed parking, orientation of front entrances to the street, and ground level open space.
⁽³⁾FAR may be increased by .1 for an apartment that provides specified design features.
⁽⁴⁾FAR may be increased by .5 for an apartment that provides specified design features.

The four diagrams attached to this memo illustrate how prototypes of different housing types could look in the different LR zones under the proposed new FAR and height limits. Before deciding on what FAR limits should be, it is important to understand how they may relate to an existing regulation—density limits.

2B. Density Limits

Currently used in LR zones, density limits are used to define the number of units that can be built on a site. For example, in L3 zones, one dwelling unit is allowed for every 800 square feet of lot area. On a typical 5,000 square foot lot the maximum number of units would be 6 units. While the number of units in a development is also controlled *indirectly* by limits on height, bulk, setbacks, open space, and minimum parking requirements, density limits cap the number of units allowed on each lot.

In 2009, DPD recommended that density limits continue to apply in LDT, L1, and L2 zones in addition to new FAR limits. DPD recommended that the density limits be set at the same levels that have applied in those zones since 1989, as shown in Table 4.

Table 4: Density Limits Proposed by DPD in 2009 for LDT, L1 and L2 Zones

	LDT Zone	L1 Zone	L2 Zone
Density Limit	No change: 1 unit/2,000 sq. ft. of lot area (no more than 3 units per structure)	No change: 1 unit/1,600 sq. ft. of lot area	No change: 1 unit/1,200 sq. ft. of lot area

DPD recommended eliminating the density limits in the current L3 and L4 zones, and relying on FAR limits and other development standards to manage both bulk and density in those zones. The current density limits are 1 unit/800 square feet in L3 zones, and 1 unit/600 square feet in L4 zones.

As with the FAR limits, given the Committee's direction to regulate structures by housing type, DPD staff have provided an alternative density proposal. This approach provides an opportunity to either encourage or discourage certain housing types depending on the zone. For example, rowhouses are not proposed to have a density limit, in order to make them more competitive with townhouses. As proposed for FAR limits, there would also be density limits on autocourt townhouses, but not on townhouses that provide desirable design features that would be defined in the Code (the lowest density LR zone would retain a density limit). The proposal also differentiates between areas inside and outside growth areas. Table 5 summarizes the new proposal.

Table 5: New staff proposal for Density Limits in Lowrise Zones

Zone		Housing Type				
	Growth Areas	Cottage Housing	Rowhouse	Townhouses that provide specified design features ⁽²⁾	Townhouses that don't provide specified design features (Autocourt) ⁽²⁾	Apartment ⁽³⁾
Units per square foot of lot area						
LR1	Not Applicable	1/1600 ⁽¹⁾	No limit	1/1600	1/2000	duplexes and triplexes only
LR2	Outside	1/1600 ⁽¹⁾	No limit	No limit	1/2000	1/1200
	Inside	1/1600 ⁽¹⁾	No limit	No limit	1/2000	1/1200
LR3	Outside	1/1600 ⁽¹⁾	No limit	No limit	1/2000	1/800
	Inside	1/1600 ⁽¹⁾	No limit	No limit	1/2000	1/600
⁽¹⁾ A limited number of associated carriage house units would not count toward the density limit. ⁽²⁾ Design features would be specified in the Code and include common enclosed parking, orientation of front entrances to the street, and ground level open space. ⁽³⁾ Apartments that provide specified design features are not subject to a density limit.						

The question before the Committee is whether to apply FAR limits to LR zones, and if so, whether the FAR limits should replace the current density limits, or be applied in addition to them and in what manner.

Next Steps: At the next COBE meeting, staff will respond to direction given today on FAR and density limits. We will also provide recommendations on setbacks, landscaping and open space requirements, and start the discussion about unit lot subdivisions.

Attachment: Diagrams of multifamily prototypes in LR zones based on new staff proposal for FAR and density limits